

## **Abstract**

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Laboratory diagnostics in reproduction immunology has fast progressed during the last years. This work is focused on influence of various factors on cell mediated immunity, because immunological reasons of infertility and recurrent spontaneous abortions are one of the most often. It evaluates influence of presence of antibodies, clinical data and partner's ejaculate quality on cells mediated immunity of examined women. It also compares two diagnostics procedures to evaluate cells immunity, the long-term migration-inhibition leukocytes test under agarosis with sperm's and trophoblast's antigens and the later NK cells activation test with sperm's and trophoblast's antigens analysed by flow cytometry. NK cells play an important role in etiology of recurrent spontaneous abortions, and that is why we observe their activation level.

By the evaluated set of 305 infertile women, who were examined between years 2009 and 2011 in the Clinical Immunology and allergology department of the Hradec Králové's Faculty Hospital, has been found relations between anti-phospholipides antibodies appearance and activated cells mediated immunity of observed women and partner's ejaculate quality influence on cells mediated immunity of examined women as well. After comparison of two above mentioned diagnostics tests the relations between the migration-inhibition leukocytes test under agarosis with sperm antigens and the NK cells activation test with sperm antigens have been found. The women with leukocytes migration inhibition with sperm antigens have more often higher ratio of the NK cells activation.

*Keywords:* cell mediated immunity, infertility, NK cells, NK cells activation test with sperm and trophoblast antigens, migration-inhibition test with sperm and trophoblast antigens.